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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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02/18/2004

Baruch Gedalia

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BANNER & WITCOFF, LTD.
TEN SOUTH WACKER DRIVE
SUITE 3000
CHICAGO, IL 60606

EXAMINER

PAINTER, BRANON C

ART UNIT

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3635

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DELIVERY MODE

03/16/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,602	Applicant(s) GEDALIA ET AL.	
	Examiner BRANON C. PAINTER	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

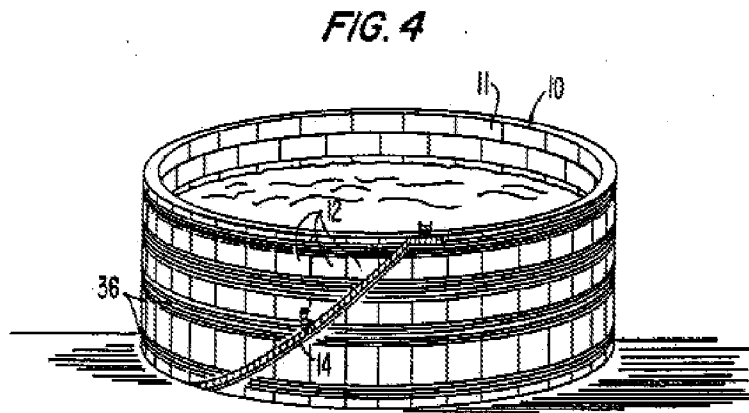
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 1, 3, 5, 6, 8, 10, 12, 13, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fawley (5,289,942) in view of Nishimura et al. (5,758,796).
4. Regarding claims 8 and 17:
 - a. Fawley discloses a tank reinforced against seismic and paraseismic stresses including:
 - i. A metal tank (10, Fig. 4; Abstract) capable of holding a static fluid and comprising a closed base capable of lying on the ground (c. 5, 47-50), an external surface (11) with a height from the base and a longitudinal axis [claim 8] comprising a cylindrical tank (12) [claim 17].

- ii. The tank surrounded over at least part of its height with fiber fabric (18; c. 6, 9-31) bonded to the external surface of the metal tank (c. 6, 32-40).
 - iii. The fabric placed in bands extending substantially around the entire circumference of the tank in a direction substantially perpendicular to the container axis (c. 6, 13-15), with the fibers extending predominantly in a direction substantially perpendicular to the container axis (fig. 1; c. 6, 16-21).
- b. Fawley discloses the claimed invention wherein the fiber fabric is made from glass fibers instead of carbon fibers. Nishimura shows that glass fibers and carbon fibers an equivalent structure known in the art or reinforcing metal containers (c. 3, 37-39). Therefore, because these two reinforcement fibers were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the carbon fibers of Nishimura for the glass fibers of Fawley.
- c. The examiner notes it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.
- d. The examiner notes that claim 17 is considered to be a product-by-process claim due to the phrase "passively bonded". The patentability of the product does not depend on its method of production. Determination of patentability

is based on the product itself. See MPEP 2113. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).



Reproduced from Fawley

5. Regarding claim 10, Fawley/Nishimura as modified above discloses a metal tank reinforced with carbon fibers, with Fawley further disclosing a tank at least partly filled when wrapped with fabric (10 is filled with fluid, Fig. 4).
6. Regarding claim 12, Fawley/Nishimura as modified above discloses a metal tank reinforced with carbon fibers, with Fawley further disclosing fabric bonded in several superposed layers (c. 6, 67 – c.7, 3).
7. Regarding claim 13, Fawley/Nishimura as modified above discloses a metal tank reinforced with carbon fibers, with Fawley further disclosing a number of superposed layers varying with the container height (c. 6, 67 – c.7, 3).
8. Regarding claims 1, 3, 5, 6, and 15, the combination renders the claimed method steps obvious since such would be the logical manner of using the combination.

Art Unit: 3635

- a. Regarding claim 15, Fawley further discloses the limitation of passively surrounding the container with fiber fabric (c. 7, 30-37).
9. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fawley/Nishimura as applied to claims 1, 3, 5, 6, 8, 10, 12, 13, 15, and 17 above, and further in view of Toth et al. (4,614,279).
10. Regarding claim 11:
 - a. Fawley/Nishimura discloses a metal tank reinforced with carbon fibers as set forth above.
 - b. Fawley/Nishimura does not expressly disclose bonding the carbon fiber fabric to the tank in such a manner to bypass regions projecting from the surface.
 - c. Toth discloses a region projecting from a tank surface, and fibers wrapped in a way that bypasses the container surface projection (c. 1, 51-62).
 - d. The examiner notes that it is notoriously well-known for tanks such as Fawley to include secondary pipes projecting from the surface thereof, to carry the contents of the pipe in a secondary direction.
 - e. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the carbon fiber fabric of Fawley/Nishimura to bypass any tank surface projections present as taught by Toth, in order to provide reinforcement to the area near such a projection.

Art Unit: 3635

11. Regarding claim 4, the combination renders the claimed method steps obvious since such would be the logical manner of using the combination.
12. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fawley/Nishimura as applied to claims 1, 3, 5, 6, 8, 10, 12, 13, 15, and 17 above, and further in view of Fawley '87 (4,676,276).
13. Regarding claim 14:
 - a. Fawley/Nishimura discloses a metal tank reinforced with carbon fibers as set forth above, with Fawley disclosing that the fabric bands can be bonded in superposed bands of different thicknesses (c. 6, 67 – c. 7, 3).
 - b. Fawley/Nishimura does not expressly disclose that the superposed layers are offset by half a band width.
 - c. Fawley '87 discloses wrapping a metal tank with reinforcing fiber bands that are superposed with an offset of half a band width (50% overlap; c. 4, 10-15).
 - d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the offset amount of the superposed bands of Fawley/Nishimura by giving them an offset of half a band width as taught by Fawley '87, in order to provide the tank with a wrapping whose thickness is uniform along the height and is a double thickness.
14. Regarding claim 7, the combination renders the claimed method steps obvious since such would be the logical manner of using the combination.

Response to Arguments

15. Applicant's arguments filed 01/15/10 have been fully considered but they are not persuasive.
16. Applicant argues that the reinforcement of Fawley would not protect against seismic or paraseismic stresses. However, the reinforcement of Fawley would necessarily provide some amount of protection or reinforcement against such stresses, meeting the claim limitations.
17. Applicant argues that the combination of Fawley/Nishimura would not have been obvious, since carbon fiber has material properties that differ from fiberglass. However, regardless of any supposed material differences in fiberglass and carbon fiber, Nishimura clearly teaches the equivalence of the two materials (c. 3, 37-39), providing motivation to replace the fiberglass of Fawley with carbon fibers.
18. Applicant continues to discuss material properties of carbon fibers and fiberglass. However, as stated above, Nishimura discloses the materials as equivalents for reinforcing. The fact that applicant has recognized another benefit of the use of carbon fibers does not discount the obviousness of the combination.
19. Applicant argues that his invention claims carbon fiber fabric placed substantially perpendicular to the tank axis, and fibers lying perpendicular to the axis. The examiner notes that Fawley teaches these limitations explicitly (Fig. 4).

Conclusion

Art Unit: 3635

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
21. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANON C. PAINTER whose telephone number is (571)270-3110. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rich Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3635

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Branon Painter
Examiner
Art Unit 3633

/Basil Katcheves/
Primary Examiner, Art Unit 3635